STEVEN L. BESHEAR
GOVERNOR

LEONARD K. PETERS
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE, 4TH FLOOR
FRANKFORT, KENTUCKY 40601
www.kentucky.gov

August 27, 2012

Bowling Green Municipal Utilities
Attn: Rodney Sullivan, Water-Wastewater Engineering
801 Center Street
Bowling Green, KY 42101-7300

RE: Bowling Green Municipal Utilities
AI # 4100
BGMU Waterline Replacement
GPR Business Case

Dear Mr. Sullivan:

Thank you for submitting a Green Project Reserve (GPR) business case for your proposed project, funded through the Drinking Water State Revolving Fund (DWSRF). A provision of the 2012, DWSRF funding cycle requires that to the extent there are eligible project applications; states shall use 20% of its Drinking Water State Revolving Fund capitalization grant for green infrastructure projects. These projects are intended to address water and energy efficiency improvements or other environmentally innovative activities. The Kentucky Division of Water (KY DOW) has reviewed the GPR business case for the BGMU Waterline Replacement project and has found the justification to be acceptable with provided construction cost of $1,040,183.60. If the scope of the project is altered in any way to exclude the GPR eligible components, BGMU shall submit the changes in writing to the KY DOW and receive prior approval in writing before proceeding with construction.

We look forward to working with you in finalizing your drinking water infrastructure project. If you have any questions regarding this correspondence, please contact me at (502) 564-3410, ext 4832.

Sincerely,

Greg Goode

Greg Goode, P.E.
Engineering Section
Water Infrastructure Branch
Division of Water

c: DWSRF File

2012 DWSRF Green Project Reserve

The below referenced project was identified as "green" or as containing "green" components. In order to determine the green costs and whether or not the project is considered categorically green or whether a business case will be required, the Division of Water needs additional information.

Green projects are classified as projects that address: Water Efficiency, Energy Efficiency, Green Infrastructure or Environmentally Innovative Activities. The guidance document located in your SRF Handbook discusses each of these categories and the components or types of projects that would require a business case versus a "categorically green" classification.

Please review the green guidance, provide the estimated green cost figures below and return to the Division of Water at your convenience.

Drinking Water SRF
Amanda Yeary
Amanda.yeary@ky.gov
502-564-3410 ext. 4839

Applicant (Must be governmental entity):	**Bowling Green Municipal Utilities**
Project Name:	**Small Waterline Replacement Project**
WX / SX Number (required):	**WX21227073**

Please provide contact information for questions relating to this form only:

Contact Name:	Leslie Otte
Email:	lotte@bgmu.com
Telephone:	270.782.4384

1) Based on the attached guidance, do you consider your project a 100% green project?

Yes ____x___ No _____

2) Based on the attached guidance, please categorize your green components into the identified categories and provide a listing of the green components and an estimation of related costs at this time:

a. Water Efficiency

Component	Cost
Waterline Replacements	$1,040,183.60

$1,040,183.60 (total)

b. Energy Efficiency

Component	Cost

$ _____ (total)

c. Green Infrastructure

Component	Cost

$ _____ (total)

d. Environmentally Innovative Activities

Component	Cost

$ _____ (total)

3) Total Project Cost related to "green" components (all categories): $ 1,040,183.60

GPR Business Case for Pipe Replacement

SUMMARY

Replacement of 9,606 feet of 2-inch galvanized distribution pipe with new 8-inch PVC pipe to eliminate the loss of 567,648 thousand gallons of water per year.

Loan amount = $1,040,183.60

Water saving (green) portion of loan = 100%

BACKGROUND

The water system includes approximately 4 miles of 2-inch galvanized distribution pipe. The treatment plant processes an average of approximately 17 million gallons per day (MGD) or 6,205 million gallons per year (MGY).

As part of a water loss management plan, trends in distribution pipeline repairs were evaluated to identify potential pipeline replacement projects. It was determined that the 2-inch distribution pipe incurred the most repairs.

The 2-inch pipe account for 2.4%(4 miles) of the 164 miles of distribution pipe. Of the 4 miles this project will replace 9,606 feet of pipe with 8-inch PVC pipe.

RESULTS

27 pipeline repairs were made during 2011 on 2-inch galvanized pipe.

Avg. 6.75 leaks per mile by the length of pipe.

Assuming 80 GPM per leak, the avg. leak volume is 42,048 thousand gallons year.

CONCLUSION

By replacing the 9,606 feet of pipe the system anticipates conserving 567,648 thousand gallons per year.

Additional benefits include reductions in unnecessary pumping and operation and maintenance expenditures, and eliminating potential contamination in the water distribution system.